

CHAPTER 7

SECTION 3.5

MUCUS CLEARANCE DEVICES

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I. PROCEDURE CODE

HCPSC Level III Code 06952

II. DESCRIPTION

A mucus clearance device is a device resembling a combination of a smoker's pipe and a referee's whistle. It consists of a hardened plastic mouthpiece at one end, a plastic perforated cover at the opposite end, and a valve on the inside created by a high-density stainless steel ball resting in a plastic circular cone. When a subject exhales through the mouthpiece, the ball rolls and moves up and down creating an opening and closing cycle that repeats itself many times throughout each exhalation. The actual position of the ball during exhalation is the result of an equilibrium between the pressure of the exhaled air, the force of gravity on the ball, and the angle of contact of the ball on the cone. The opening and closing cycles of the steel ball produce oscillations of endobronchial pressure and expiratory air flow. Vibration of the airways presumably loosens mucus from the airway walls, and the acceleration of expiratory airflow facilitates the movement of mucus up the airways, and increases the likelihood of clearing mucus from the tracheobronchial tract.

III. POLICY

Coverage of the mucus clearance device is limited to patients with cystic fibrosis, bronchiectasis, and bronchitis, and other mucus producing lung disease.

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